REMARKS

Claims 1, 3-10, and 12-16 are pending.

The withdrawal of the previous rejections is noted with appreciation.

The indication that claims 4-6 and 13-15 would be allowable if suitably amended as to form is gratefully acknowledged.

The pending Action objects to claims 8 and 9 as being of improper dependent form for failing to further limit the subject matter of a previous claim. These objections are not completely understood. Claim 8 defines a telephone having, among other things, a loudspeaker volume range control arrangement as claimed in claim 1, and claim 9 defines a motor vehicle fitted with a telephone as claimed in claim 8. Claim 1 defines a loudspeaker volume range control arrangement for a telephone, but of course this is not the same as defining a telephone, as claim 8 does, or a motor vehicle fitted with a telephone, as claim 9 does. Because claim 8 clearly does further limit the subject matter of claim 1 and because claim 9 clearly does further limit the subject matter of claim 8, it is respectfully requested that the objections to claims 8 and 9 be reconsidered and withdrawn.

The pending Office Action rejects claims 1, 7, 10, and 16 under 35 U.S.C. § 102(b) for anticipation by newly cited U.S. Patent No. 5,450,494 to Okubo et al. ("Okubo"), and rejects claims 3 and 12 under 35 U.S.C. § 103(a) for obviousness over a combination of Okubo and so-called "well know[n] prior art (MPEP 2144.03)". These rejections should be reconsidered and withdrawn at least because Okubo and any "well known prior art" do not disclose all of the features of the rejected claims. Accordingly, Okubo fails to anticipate claims 1, 7, 10, and 16, and the combination of Okubo and so-called well known prior art fail to meet all of the requirements of a *prima facie* case of obviousness.

Independent claims 1 and 10 each specify that the volume range of the loudspeaker is controlled based on an estimated distance between the loudspeaker and the microphone, with the distance being estimated based on adaptive filter coefficients. Independent claims 7 and 16 specify that the ratio or the difference between the energies of the loudspeaker signal and the microphone signal is used to estimate distance between the loudspeaker and the microphone.

In contrast, Okubo is concerned with adjusting the volume range of loudspeakers 107, 108, based on the ambient noise level and says nothing about estimating distance between its loudspeakers 107, 108, and its microphone 109. See Okubo's Fig. 5. In order to achieve this object, the system disclosed in Okubo needs to be certain that the signals detected by the microphone 109 represent ambient noise, rather than sound produced by its loudspeakers and subsequently detected by the microphone. In order to achieve this, Okubo subtracts a signal representing the loudspeaker output from the signal detected by the microphone in order to obtain a single signal that correctly represents the ambient noise.

This is apparent from Okubo's Fig. 5, in which output signals from the control amplifiers 102, 103 (which drive the loudspeakers 107, 108) are passed through conditioning circuitry (A/D converters 110, 111 and filters 113, 114) before being input to a subtracter 114. The other input to the subtracter is a conditioned signal from the microphone 109, which of course is the loudspeaker signal plus ambient noise. Accordingly, the output of the subtracter 115 is an ambient noise signal, which is provided to the amplification controller 119. This operation is described at col. 5, ll. 33-52 and col. 6, ll. 31-41.

Thus, Okubo does not teach or even suggest that the distance between the loudspeakers 107, 108, and the microphone 109 is "estimated", as pending claims 1, 7, 10, and 16, and their dependent claims, require. Even if it were possible to estimate the distance between the loudspeaker and microphone in Okubo's system, doing so would have no purpose in Okubo's system because Okubo simply subtracts two signals to obtain a third signal that represents the ambient noise.

In addition, there is absolutely no disclosure in Okubo of any control of the volume range of the loudspeaker in dependence on an estimated distance between the loudspeaker and the microphone, as required by claims 1, 7, 10, and 16. Rather, Okubo is concerned with avoiding a situation in which the loudspeaker has any influence on the control of the volume range of the loudspeaker. This is why the signal representing the loudspeaker output is subtracted from the signal received at the microphone, in order to ensure that the device is able to detect accurately the level of ambient noise.

Application No. 09/588,462 Attorney's Docket No. 0119-076
Response to Action mailed 02/09/2005

Because Okubo does not teach all of the features of claims 1, 7, 10, and 16 as explained above, it is respectfully submitted that Okubo cannot anticipate those claims. Accordingly, the anticipation rejections should be reconsidered and withdrawn.

With respect to claims 3 and 12, the features described above that are absent from Okubo are not supplied by the so-called "well known prior art", as admitted in the pending Action. Accordingly, the cited art fails to support a *prima facie* case of obviousness, which requires, among other things, disclosure of all of the features claimed. In view of these remarks, it is believed unnecessary to discuss in detail the other two requirements of a *prima facie* case, motivation to combine and reasonable expectation of successful combination, except to state that these would also have been lacking from the cited art. It is therefore respectfully requested that the obviousness rejections be reconsidered and withdrawn.

This application is believed to be in condition for allowance, and an early Notice to this effect is respectfully solicited. If the Examiner has any questions, the undersigned attorney may be telephoned at the number given below.

Respectfully submitted,

Filed June 9, 2005

Michael G. Savage
Registration No. 32,596

Potomac Patent Group PLLC
P.O. Box 855
McLean, VA 22101
Tel: 919 677 9591